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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/602,744	06/25/2003	Myoung-Kee Back	8733.849.00	1174
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30827 7590 12/18/2006  
MCKENNA LONG & ALDRIDGE LLP  
1900 K STREET, NW  
WASHINGTON, DC 20006

EXAMINER
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FERGUSON, MARISSA L

ART UNIT	PAPER NUMBER
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2854

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS	12/18/2006	PAPER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/602,744	Applicant(s) BAEK ET AL.	
	Examiner Marissa L. Ferguson-Samreth	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Patent 5,514,503) in view of Kugo et al. (US Patent 4, 673,252).

Regarding claims 1, 3 and 10, Evans et al. teaches providing a cliché (14) having a plurality of grooves (Figure 2 and Column 5, Lines 36-60), filling Red, Green and Blue colored inks into the grooves of the cliché (Column 6, Lines 7-10), repositioning the Red, Green and Blue colored inks (Column 6, Lines 11-13), transferring the colored inks filled in the grooves of the cliché onto a printing roll (14) by rotating the printing roll (14) on the cliché in which the Red, Green and Blue colored inks are filled (Column 9, Lines 20-29) and applying the Red, Green and Blue colored inks on the printing roll onto of the substrate by rotating the printing roll across the substrate (column 10, Lines 38-45). However, he does not explicitly disclose providing a substrate, which is divided into an active area for realizing image and a dummy area for not realizing image areas and wherein the Red, Green, Blue colored inks are co-planar in the dummy area.

Kugo et al. teaches a liquid crystal display wherein a substrate of color filters are divided into a active and dummy areas and are co-planar (Column 5, Lines 62-68 and

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Column 6, Lines 1-18, Figure 6 and Figure 9), It would have been obvious at the time the invention was to a person having ordinary skill in the art to modify the invention as taught by Evans to include an active area and a dummy area as taught by Kugo et al., since Kugo et al. teaches that it is advantageous to greatly enhance the legibility and appearance of the display.

Regarding claim 2, Evans et al. teaches wherein filling includes placing the Red, Green and Blue colored inks into the grooves of the cliché concurrently (Column 10, Lines 51-64)

Regarding claim 4, Evans et al. teaches wherein applying includes rolling the printing roll only once across the substrate (Figure 4 and Column 10, Lines 44-48).

Regarding claims 5 and 12, Evans et al. teaches forming a black matrix on the substrate between the Red, Green and Blue colored inks on the active area (Figure 4, Lines 1-13).

2. Claims 6-9, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Patent 5,514,503) in view of Kugo et al. (US Patent 4,673,252) as applied to claim 1 above, and further in view of Aoki et al. (JP 11-326621).

Regarding claims 6, 8, 9, 11 and 13-15, Evans et al. and Kugo et al. teach the apparatus and method claimed including wherein Red, Green and Blue color inks of the substrate are formed in at least one or more pixels when it is assumed that respective red, green and blue sub-pixels are defined as one pixel as disclosed in Evans et al. (column 7, Lines 64-67). However, Evans et al. and Kugo et al. do not

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explicitly disclose forming a black matrix between the Red, Green and Blue ink/filter colored on the dummy area.

Aoki et al. teaches a black matrix (28) formed between colored filters (27-1- 27-3). It would have been obvious at the time the invention was to a person having ordinary skill in the art to further modify the invention as taught by Evans to include forming a black matrix in between a colored filter as taught by Aoki et al., since Aoki et al. teaches that it is advantageous to prevent image distortion.

Regarding claim 7, Evans et al. teaches wherein forming a black matrix includes patterning a thermoplastic resin (Column 5, Lines 36-60).

### ***Response to Arguments***

3. Applicant's arguments filed on 9/27/06 with respect to claims 1-5, 7-11, 14 and 15 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's arguments filed 9/27/06 with respect to claims 6, 12 and 13 have been fully considered but they are not persuasive. Specifically, regarding remarks addressed on page 6, last paragraph, page 7, paragraphs 1-3 and Page 8, paragraphs 3 and 4, the examiner notes that as discussed in paragraph 0026 in the Aoki reference, the black matrices is formed and is located between color pixels as shown in Figure 8.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson-Samreth whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

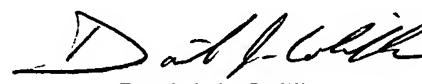
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marissa L Ferguson-Samreth  
Examiner  
Art Unit 2854

MFS



Daniel J. Colilla  
Primary Examiner  
Art Unit 2854